

CLAIMS

What is claimed is:

- 5 1. A portable communication network comprising: plural portable communications units, each providing: (a) a unit code, (b) a wave energy transceiver enabled for direct communication with any other one of the communications units over a limited range, (c) means for assigning a target code to each signal transmission, (d) means for detecting the target code in each signal reception, (e) means for processing a received signal when the target code of the received signal equals the unit code, and (f) means for retransmitting a received signal when the target code of the received signal differs from the unit code; whereby, through signal repeating, communication is enabled between any two of the communications units when their separation is greater then the limited range.
- 10 2. The portable communication network of Claim 1 wherein each of the units further comprises means for assigning route codes to each of the retransmitted received signals.
- 15 3. The portable communication network of Claim 1 wherein each of the units further comprises means for assigning the unit code to each signal transmission.
- 20 4. The network of Claim 2 wherein each of the units is further enabled for assigning a selected route code to a transmission subsequent to a previous transmission having the selected route code.
- 25 5. The network of Claim 1 wherein at least one of the units is further enabled for fixed-wire communication.

6. The network of Claim 1 wherein each one of the units is enabled for measuring a time delay between an interrogation and a reply with another of the units and for sending position information of said one of the units within a reply message, the one of the units enabled further for determining a relative position on the Earth of the one of the units by a triangulation method.

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to the first unit with a first time delay, the first unit is enabled for sending a first position information of the first unit within a first reply message, the first unit is enabled for determining a relative position on the Earth of the first unit by a triangulation method.